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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,498	05/30/2001	Kazutoshi Onozawa	10873.736US01	9056

7590

08/24/2004

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 08/24/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/867,498

Applicant(s)

ONOZAWA ET AL.

Examiner

Jorge L Ortiz-Criado

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,5,6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 13,14,3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi et al. European Patent Application Publication No. 1089268 in combination with Nemoto U.S. Pub. No. 2001/0038101 and further in view of Miura European Patent Application Publication No. 109648238.

Regarding claim 1, Nakanishi et al. discloses an optical pick-up (See Figs. 27-30; col. 25-[0141] to col. 29-[0160]) comprising

a movable portion on which at least a semiconductor laser element array having a plurality of lasing wavelengths irradiating an optical recording medium with laser beams and an objective lens converging laser beams emitted from the semiconductor laser element array are mounted (See Fig. 27, ref# 301, 306, col. 25-[0141]; col. 29-[0159]) ,

a fixed portion supporting the movable portion (See Figs. 27,28, ref# 302), and

a supporting component connecting the movable portion to the fixed portion so that the movable portion is rockable in a focus direction and a tracking direction of the optical recording medium (See Figs. 27-28, ref# 303);

wherein the semiconductor laser element array comprises at least a first laser element and a second laser element that have different lasing wavelengths from each other (See col. 29-[0159]), and

the semiconductor laser element array and the objective lens are each fixed to the movable portion so that an optical positional relationship between the semiconductor laser element array and the objective lens remains fixed (See col. 26-[0146]) and

Nakanishi et al. fails to disclose wherein the second laser element having a height adjusting buffer layer and wherein an optical axis of a semiconductor laser element having a shortest wavelength among the semiconductor laser element array is kept aligned with a center of an optical axis of the objective lens.

However, these features are well known in the art as evidenced by Nemoto, which teaches a semiconductor laser element array having a plurality of lasing wavelengths for an optical pick-up to irradiating an optical recording medium and wherein the second laser element having a height adjusting buffer layer (See for example in Fig. 5,6,12, buffer layer # 36 for the second laser element LD2).

And further as evidenced by Miura, which discloses a semiconductor laser element array having a plurality of lasing wavelengths in an optical pick-up to irradiating an optical recording having an optical axis of a semiconductor laser element having a shortest wavelength among the

Art Unit: 2655

semiconductor laser element array is kept aligned with a center of an optical axis of the objective lens. (See paragraphs [0027]-0034]; Figs. 6)

It would have been obvious to one with ordinary skill in the art at the time of the invention to include a height adjusting buffer layer to the second laser element in order to obtain the desired height arrangement between the first and the second laser elements as teaches by Nemoto, and having a shortest wavelength among the semiconductor laser element array kept aligned with a center of an optical axis of the objective lens in order to obtain minimal aberration as teaches by Miura.

Regarding claim 5, the combination of Nakanishi et al. with Nemoto and Miura shows wherein a photodetector for receiving returned light beams from the optical information recording medium is mounted on the movable portion (See Nakanishi et al.; (See col. 25-[0141]))

Regarding claim 6, the combination of Nakanishi et al. with Nemoto and Miura shows wherein the semiconductor laser element array and the photodetector are integrated via a substrate, and the substrate is provided with a mirror reflecting laser beams emitted from the semiconductor laser element array (See Nakanishi et al. Fig. 30)

Regarding claim 8, the combination of Nakanishi et al. with Nemoto and Miura shows wherein the supporting component comprises a plurality of metal members independent in electric potential respectively, and at least one of the plurality of metal members works as an

Art Unit: 2655

electric feeder line with respect to the semiconductor laser element array. (See Nakanishi et al., col. 25-[0144])

Regarding claim 9, the combination of Nakanishi et al. with Nemoto and Miura shows wherein a photodetector receiving returned light beams from the optical information medium is further mounted on the movable portion, and at least one of the plurality of metal members works as an electric feeder line with respect to the photodetector (See Nakanishi et al., col. 25-[0141]-[0144])

Regarding claim 10, the combination of Nakanishi et al. with Nemoto and Miura show an information recording and reproducing apparatus on which an optical pickup according to claim 1 is mounted (See Nakanishi et al., col. 1, [001])

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. patent No. 6,366,548 to Ohyama, which discloses an optical pickup comprising a semiconductor laser element array having a plurality of lasing wavelengths irradiating an optical recording medium with laser beams and an objective lens converging laser beams emitted from the semiconductor laser element array wherein the semiconductor laser element array comprises at least a first laser element and a second laser element that have different lasing wavelengths from each other, the semiconductor laser element array and the objective lens are each fixed to a movable portion so that an

optical positional relationship between the semiconductor laser element array and the objective lens remains fixed.

b. U.S. Patent No. 5,323,378 to Kim et al., which discloses an optical pickup comprising a movable portion on which at least a semiconductor laser element and an objective lens converging laser beams emitted from the semiconductor laser element wherein the objective lens are each fixed to the movable portion so that an optical positional relationship between the semiconductor laser element array and the objective lens remains fixed.

c. U.S. Patent No. 5,241,528 to Mohri et al., which discloses an optical pickup comprising which discloses an optical pickup comprising a movable portion on which at least a semiconductor laser element and an objective lens converging laser beams emitted from the semiconductor laser element wherein the objective lens are each fixed to the movable portion so that an optical positional relationship between the semiconductor laser element array and the objective lens remains fixed and wherein the supporting component comprises a plurality of metal members independent in electric potential respectively, and at least one of the plurality of metal members works as an electric feeder line with respect to the semiconductor laser element array

d. U.S. Patent No. 6,313,956 to Saito, which discloses an optical pick-up comprising a semiconductor laser element array including at least a first laser element and a second laser element that have different lasing wavelengths from each other and wherein an optical axis of a semiconductor laser element having a shortest wavelength among the

Art Unit: 2655

semiconductor laser element array is kept aligned with a center of an optical axis of the objective lens.

e. JP Publication No. 10-021577 to Yonekubo, which discloses an optical pick-up comprising semiconductor laser element array and the photodetector are integrated via a substrate, and the substrate is provided with a mirror reflecting laser beams emitted from the semiconductor laser element array.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 5-6 and 8-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

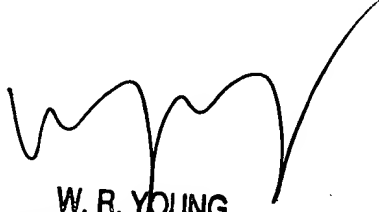
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 2655

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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W. R. YOUNG  
PRIMARY EXAMINER